

CLAIM AMENDMENTS

1-21. (Cancelled)

22. (Previously Presented) A method, comprising:

a) providing:

- i) a reaction vessel configured with an aspect ratio of at least 3.3,
- ii) a heat source contacting said bottom of said reaction vessel;
- iii) a cooling means contacting said top of said reaction vessel, wherein said cooling means is selected from the group consisting of a water bath and a refrigeration device; and,
- iv) a solution comprising a plurality of reactants;

b) introducing said solution into said vessel; and,

c) creating at least one convection cell by applying heat to said bottom of said vessel with said heat source and cooling said top of said vessel with said cooling means under such conditions that said reactants form a reactant product.

23. (Original) The reaction vessel of Claim 22, wherein in cross section the reaction vessel is without corners.

24. (Original) The reaction vessel of Claim 22, wherein in cross section the reaction vessel is with corners.

25. (Original) The method of Claim 22, wherein said reactants comprise i) nucleic acid comprising a target and ii) primers substantially homologous to at least a portion of said target.

26. (Canceled)

27. (Previously Presented) The method of Claim 22, wherein products comprise amplified nucleic acid.
28. (Original) The method of Claim 22, wherein said reaction vessel comprises material selected from the group consisting of Plexiglas™, glass, plastics, silicones and metal.
29. (Original) The method of Claim 22, wherein said reaction vessel is part of an array.
30. (Previously Presented) The method of Claim 22, wherein a temperature differential of at least 10°C is established within said convection cell.
31. (Original) The method of Claim 22 further providing at least one microdroplet channel wherein said microdroplet channel is in fluid communication with said reaction vessel.